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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/669,805	09/23/2003	Matthew J. Craighead	NVID-P000659	8167

7590                    06/28/2007  
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San Jose, CA 95113

EXAMINER
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SHIN, CHRISTOPHER B

ART UNIT	PAPER NUMBER
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2181

MAIL DATE	DELIVERY MODE
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06/28/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/669,805	CRAIGHEAD, MATTHEW J.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Christopher B. Shin	2181	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-43 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                          | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Allowable Subject Matter***

1. Claims 19-43 are allowable over the prior art of record.

***Official Notice***

2. Examiner would like to point that the USPAT Database/File contains, specifically in class 710 Subclass 22-28, teaches DMA technique that are well known in the art and the examiner relies on the well known common knowledge of the DMA technique. It appears, from the broad claimed invention, that the gist of the claimed invention relies on the utilization of non-pageable memory in combination with the DMA transfer. The examiner recommends the applicant to search DMA in the USPAT file, when there is doubt of the official notice. See also the examiner cited references teaches some of the well-known operations/techniques of DMA technique and the utilization of the DMA techniques in different environments.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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4. Claims 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Blackmore et al. (6,799,200).

a. In column 1, lines 56 – end, teaches the “DMA engine ...buffers in consideration are marked as non-pageable”; therefore, the claimed invention of claim 1 are anticipated by the teachings of the Blackmore reference.

2. Claims 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Macieoswicz (2005/0160191).

b. In [0384], [1120] & [1221] section teaches the combination of allocation of non-pageable memory for DMA operation; therefore, one skill in the art can anticipate the claimed invention from the teachings of the Macieoswicz reference.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over the well-known prior art (e.g., well known prior art teachings of DMA of the official notice) Macieoswicz (2005/01600191).

c. The teachings of the parent claim 1 are similarly applied.

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d. As for dependent claims 2-7, 13 & 15-18, the claimed invention further adds limitations that are commonly practiced in the well known DMA technique (see also the Official Notice). In addition, the examiner believes that the limitations of claims 2-7 are considered common knowledge/technique in the art of DMA operation (i.e., the examiner does not believe the further limitations of claims 2-7 are allowable when the claim 1 is not).

e. As for dependent claims 8-12 are directed to different environments for the DMA operation; however, one skilled in the art knows the motivation for adding of utilizing DMA technique in any data transfer environment for the well known motivation of efficient handling of data transfer.

f. As can be seen for the above teachings, the Macieoswicz does not expressly disclose the details of the well known DMA techniques; however, such details are commonly practiced/well known details of DMA operations.

Therefore, it would have been obvious at the time the invention was made to one having ordinary skill in the art to add the commonly known aspect of the DMA operation for the well known motivation of efficient handling of the data transfer & alleviate the burden of the main processor, as well known and motivated in the art, to the Macieoswicz system, for the reasons stated above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher B. Shin whose telephone number is 571-272-4159. The examiner can normally be reached on 6:30-5:00 M,Tu,Th,F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on 571-272-4201. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CHRISTOPHER SHIN  
PRIMARY EXAMINER  
OF 2181

June 15, 2007  
Cs

